ABSTRACT

A head (101) prints a predetermined test pattern under the control of a head control unit (204) in order to precisely detect a head deviation when a head has been changed, the printed test pattern is read by a sensor 110 and detected by a pattern detector (209). Every time an interrupt signal corresponding to the edge of a detected pattern element is input to the CPU (203), a value of a main scanning counter (205)/main scanning timer (207) (and/or a sub-scanning counter (206)/sub-scanning timer (208)) is read, the printing position of each pattern element is detected from the value, and the mounting deviation of the head is calculated based on the detection result of the printing position of each pattern element printed by the head. The vertical bar of a test pattern may be printed in multiple passes. A plurality of edges may be detected at different longitudinal positions of the bar and the detected results are averaged to determine an edge position.